Shattuck Superfund Site

Spring 2003 Update

U.S. Environmental Protection Agency, Region 8 **April 2003**

THE PURPOSE OF THIS FACT SHEET is to update readers on U.S. Environmental Protection Agency (EPA) actions regarding the S.W. Shattuck Chemical Company Superfund site (Shattuck) at 1805 S. Bannock Street in Denver, Colorado (see **Figure 1**).

Figure 1. Site Location Map

ABOUT THE SITE

The Shattuck site is about 6 acres of S.W. Shattuck Chemical Company property.

The original Record of Decision (ROD) was signed in January 1992. In it, EPA selected on-site stabilization and solidification in the form of a monolith as the remedy for the soils and natural attenuation for ground water.

EPA conducted a five-year review of the Shattuck site and found site-specific deficiencies in the monolith cover design, the structural and chemical integrity of the monolith, and the monolith's compliance program. Based on these findings, EPA could not be assured of the long-term protection of the original remedy.

On June 16, 2000, EPA selected off-site removal in a ROD Amendment because it best met Superfund's nine evaluation criteria. EPA will remove the contaminated soil and monolith to U.S. Ecology, a permitted facility in Grandview, Idaho.

Benefits of Off-site Disposal:

- Removes uncertainties concerning the long-term protection of human health and the environment;
- Allows for unrestricted land use upon remedy completion; eliminates reliance on land-use restrictions;
- Removes source material that could potentially contribute to future ground water contamination; and
- Disposes of material in a permitted facility, which will be most protective of human health and the environment.

SITE PROGRESS

Site activities and progress since last fall 2002:

Waste shipments began on March 9, 2003. The site loads five rail cars per day, each rail car carrying up to 108 tons of waste material. The railroad will pull out 20 rail cars a week from the Shattuck rail spur (see **Figure 2**).

Figure 2. Loaded Rail Cars.

Shaw Environmental & Infrastructure, Inc. (Shaw E & I) mobilized personnel, field equipment and supplies, and safety and radiological instrumentation to the site.

Shaw E & I initiated the perimeter boring program to assess perimeter soil contamination. Phase one sampled the west and south sides, and 100 feet on the east side. Phase two will complete the east side and sample the north side.

Shaw E & I procured services to complete the conveyor belt system to transport waste material from the mining structure to the load out structure, setup on-site and off-site laboratory services, complete the load out structure floor and decontamination pad, establish site security, re-install the permanent west side fence, setup the computer system, install site utilities, and begin miscellaneous services.

Erosion control measures including a drainage ditch and culverts on the west side and a perimeter silt fence have been completed.

The Burlington Northern and Santa Fe Railroad completed the site rail spur.

SITE STRUCTURES

Three temporary, connected, project structures are in place to minimize environmental impacts to the community.

The mining structure combines five rigid metal modules with four tension fabric links. The structure spans the site from east to west and is 100 feet wide. It will enclose the area of the monolith being mined. Mining operations consist of excavation of cover material, monolith material, and contaminated perimeter and underlying soil. The structure will move north along 10 rail lines, about 80 feet at a time, after the monolith and contaminated perimeter and underlying soil are excavated, and the area is surveyed to be clean. The building has four stages of particulate filters to control emissions from the structure (see **Figure 3**).

Figure 3. Mining Structure.

The conveyor structure is a rigid metal building along the western property boundary. The conveyor moves the mined material from the mining structure to the load out structure. The conveyor structure and conveyor belt are initially 650 feet long. They will be shortened about 80 feet and reconnected for each move of the mining structure (see **Figure 4**).

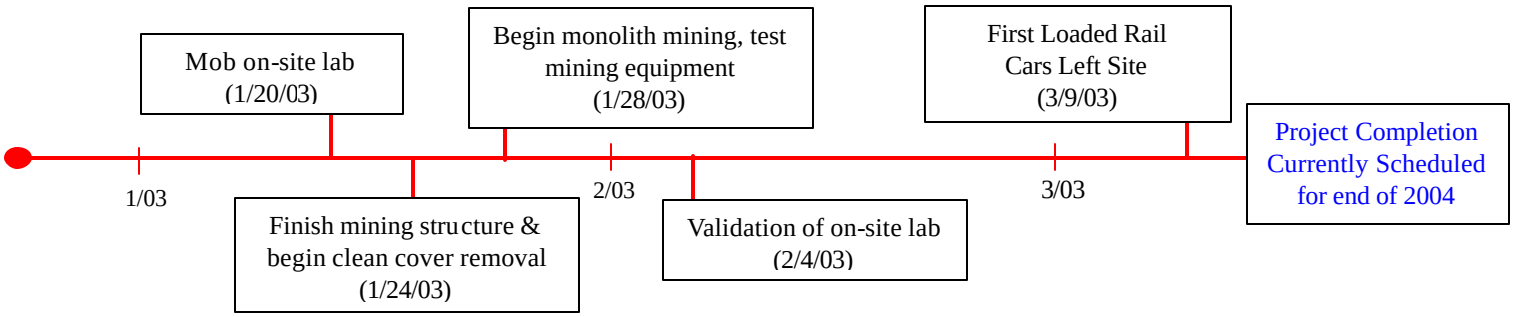
Figure 4. Conveyor Structure.

Set up over the Shattuck rail spur at the northwest end of the site, the load out structure is also a rigid metal building with four stages of particulate filters. The 120-foot by 60-foot building allows rail cars to be filled with waste material inside the structure to prevent emissions. The waste material is placed in a plastic liner in the rail cars. The liner is wrapped over the waste and tied shut to prevent loss during transportation (see **Figure 5**).

Figure 5. Load out Structure.

CLEANUP ACTIVITY PREPARATIONS

Ventilation and dust suppression systems are installed in the mining and load out structures. A sign on the north side of the mining structure is placed green side out when



clean cover operations are in progress and red side out when mining operations are in progress.

Contamination Reduction Zones (CRZs) consist of a concrete decontamination pad for the load out structure, a temporary decontamination pad for the mining structure, and "frisking" stations for personnel and equipment.

Field testing equipment to break up the monolith confirmed that a D8 bulldozer with ripper performs best. It mines and breaks up the material for load out at an acceptable rate.

Rail cars dedicated to the Shattuck operation arrived on the rail spur.

The on-site laboratory is operational and certified.

OTHER PROJECT ACTIVITIES

The City and County of Denver (Denver) Building Department reviewed the site structures' design package.

Shaw E & I revised the necessary Denver permit applications for erosion control, sanitary sewer, and superstructure as well as the Colorado Department of Public Health and Environment (CDPHE) air pollutant emission notice.

Shaw E & I provided all shifts of the Denver Fire Department Engine Companies 16 and 21 with on-site safety orientation and radiation worker training.

The EPA and CDPHE hosted an event for the community and public officials on December 7, 2002. The event included a bird's eye view of the site from the RTD flyover west of the site. Elected officials, community members, and agencies' representatives spoke, and a reception followed.

SAFETY MONITORING

As required by the site and community health and safety plans, various personnel and perimeter monitoring are currently in operation at the site.

Perimeter air monitoring includes eight on-site high volume air samplers, eight on-site air sampling pumps, an off-site (background) high volume air sampler, and an off-site air sampling pump (both at Englewood Golf Course) that are running 24 hours a day, 7 days a week. Additionally, there is one background PM-10 dust monitor running 24 hours a day, 7 days a week and a work area PM-10 dust monitor that operates only during intrusive activities on-site. These monitors are equipped with alarms to immediately alert site personnel of any high particulate levels so that corrective actions can be taken to reduce dust.

Personnel monitoring includes thermoluminescent and radon dosimeters, air pumps for site radionuclides, heavy metals, and silica, Draeger air sampling pump for ammonia, nitrogen dioxide meter (from diesel fumes), carbon monoxide meter, and noise dosimeter. Vibration monitoring is also being conducted at the site perimeter.

The EPA is also conducting a radon monitoring program at the site.

SITE SECURITY

The site has a security guard 24 hours a day, 7 days a week. In addition, a security monitoring system operating at the site includes an electronic card reader system for check points around the site and a security camera looking south along the Shattuck site railroad spur.

FOR SITE AND PROJECT INFORMATION

Visit the **EPA Shattuck web site:**

http://epa.region8/superfund/shtk/shattuck.html

Visit one of the **Information Repositories** listed on the back page.

FOR INFORMATION ABOUT SHATTUCK CITIZEN ADVISORY GROUP MEETINGS

Contact: Rob Henneke, EPA, (303) 312-6734.

FOR MORE INFORMATION

Contact an agency representative listed on the back page.

Information Repositories

Documents related to the Shattuck site clean-up process are available for public review at the following locations:

EPA Superfund Records Center
South Tower, 3rd Floor (check-in)
999 18th Street
Denver, Colorado 80202
Monday-Friday 8:00-4:30
(303) 312-6473

Colorado Department of Public Health and Environment
Record Center, B Building, 2nd Floor
4300 Cherry Creek Drive South
Denver, Colorado 80246
Monday-Friday 8:00-5:00
(303) 692-3331

Decker Branch, Denver Public Library
1501 South Logan Street, Denver, Colorado 80210
Monday 10:00-8:00; Tuesday 12:00-8:00; Wednesday, Thursday, Saturday 10:00-5:30; Friday, Sunday closed
(303) 733-7584

For More Information Contact:

U.S. Environmental Protection Agency
999 18th Street, Suite 300
Denver, CO 80202-2466
Toll-free (800) 227-8917 x6734

Jim Hanley (EPR-SR)
Remedial Project Manager
(303) 312-6725; hanley.james@epa.gov

Rob Henneke (OC)
Community Involvement Coordinator
(303) 312-6734; henneke.rob@epa.gov

Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
HMWMD-RP-B2
Denver, CO 80246

Fonda Apostolopoulos
Project Manager
(303) 692-3411; fonda.apostolopoulos@state.co.us

Beth Williams
Community Involvement Coordinator
(303) 692-3308; bethann.williams@state.co.us

RH
U. S. Environmental Protection Agency
999 18th Street, Suite 300, 8OC
Denver, CO 80202-2466